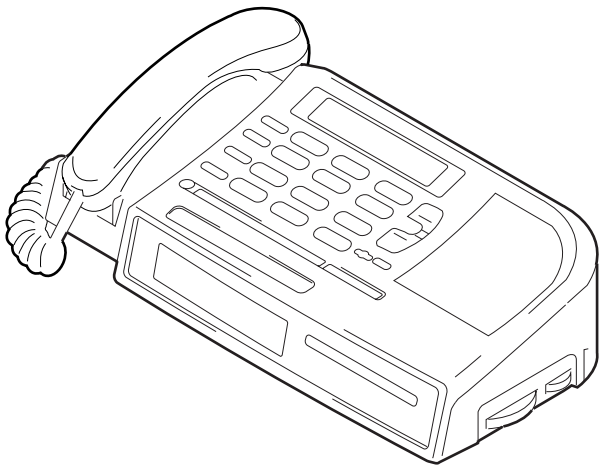
SCT-ID10

SERVICE MANUAL

US Model
Canadian Model

Ver 1.0 1998.03



SPECIFICATIONS

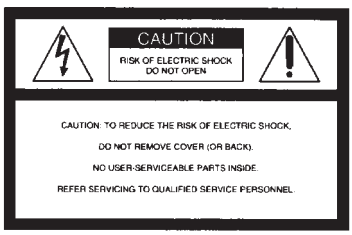
Frequency range
FM : 87.5 – 108 MHz
AM : 530 – 1,605 kHz
Speaker Approx. 6.6 cm (2 5/8 inches) dia., 8 ohms
Power output
100 mW (at 10% harmonic distortion)
Dial signal :
Tone, pulse selectable
Power requirements :
120V AC, 60Hz
For power backup :
9V DC, one 6F22 battery (Functions for clock radio only)
Battery life :
Approx. 35 hours using the Sony S-006P (U) battery
Dimensions :
Approx. 250 x 98.6 x 202 mm (w/h/d)
(9 7/8 x 4 x 8 inches) incl. projecting parts and controls
Mass Approx. 880g (2 lb. 31 oz) not incl. battery
Supplied accessories
Telephone line cord (1)
Handset cord (1)

Design and specifications are subject to change without notice.

WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.
To avoid electrical shock, do not open the cabinet.
Refer servicing to qualified personnel only.

For the customers in the U.S.A.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

* The graphical symbols are on the bottom enclosure.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

ID TELEPHONE CLOCK RADIO

MICROFILM

SONY®

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SAFETY CHECK-OUT (US model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer : Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

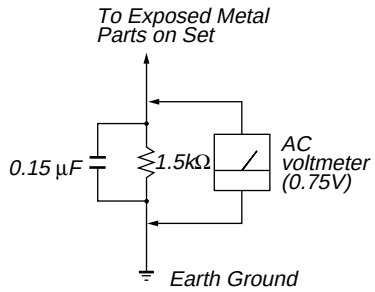


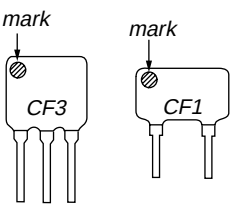
Fig. A. Using an AC voltmeter to check AC leakage.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

• HOW TO CHANGE THE CERAMIC FILTER

This model is used two ceramic filters of CF3 and CF1.
You must use same type of color marked ceramic filters in order to meet same specifications.
Therefore, the ceramic filter must change two pieces together since it's supply two pieces in package as a spare parts.



Mark	Center frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.
REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

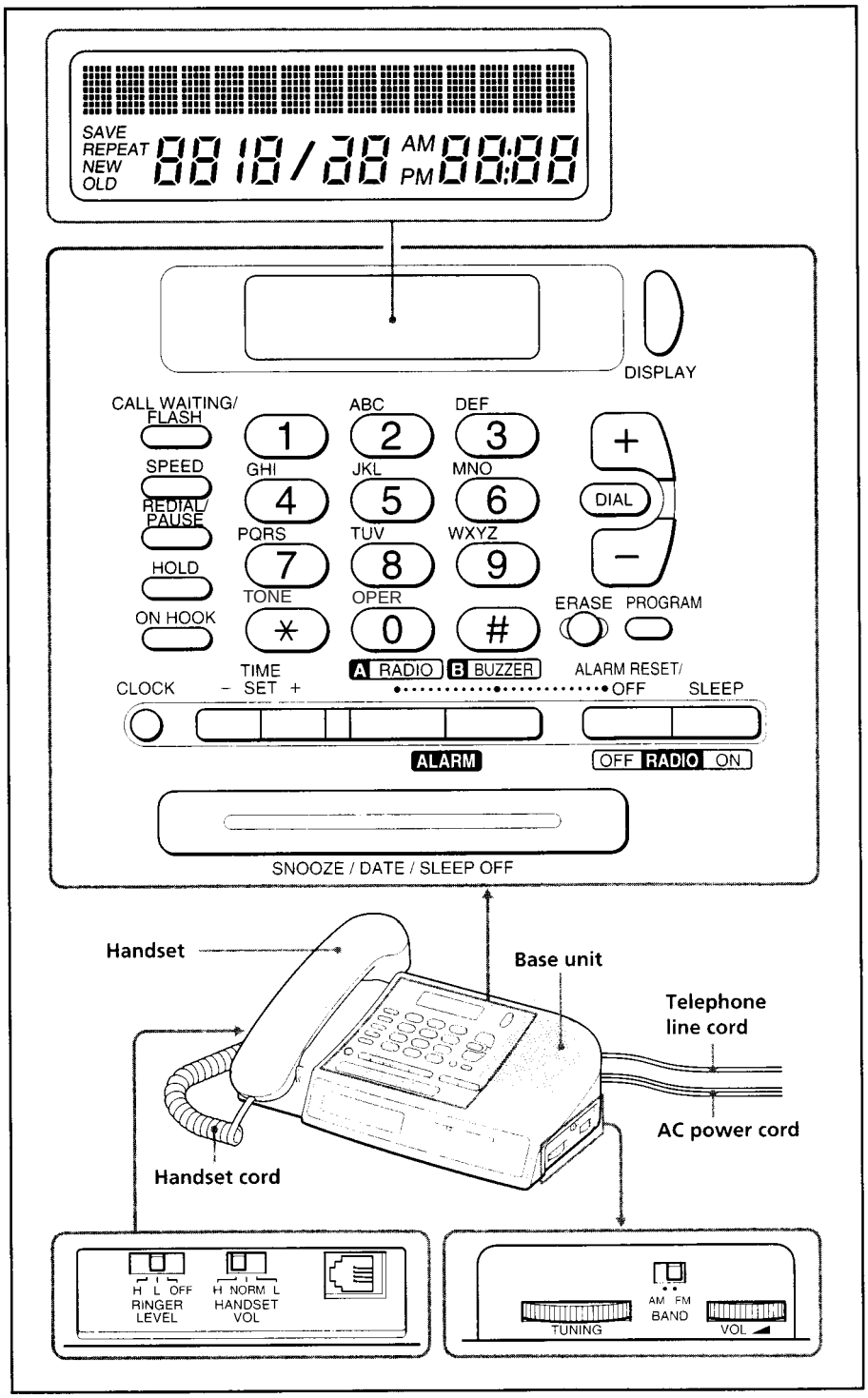
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
GENERAL

This section is extracted from instruction manual.

LOCATION AND FUNCTION OF CONTROLS



Installing the Battery

To keep good time, your unit needs one S-006P battery (not supplied), in addition to house current. The battery keeps the clock operating in the event of a power interruption. Before setting the time on your unit, open the lid at the bottom of the unit, install the battery with correct polarity and then close the lid.

- After a power interruption, the displayed time may not be always correct (it may gain or lose about 10 minutes per hour).

Knowing when to replace the battery

- To check battery power, unplug the power cord from the wall outlet and plug it in again after a few minutes. If the displayed time is incorrect, replace the battery with a new one.

Setting the Clock

Setting the time

1 Plug in the unit.
The display will flash "AM 12:00".
2 While holding down **CLOCK**, press **TIME SET +** or **–** until the correct time appears in the display.
When you release **CLOCK**, the clock begins to operate.

- To set the current time rapidly, keep pressing the **+** or **–** button while holding down **CLOCK**.

Setting the Date

1 While holding down **SNOOZE/DATE/SLEEP OFF**, press **TIME SET +** or **–** until the correct date appears in the display. Then, release **SNOOZE/DATE/SLEEP OFF**.

- To display the date, press **SNOOZE/DATE/SLEEP OFF**. The display returns to the current time when you release **SNOOZE/DATE/SLEEP OFF**.

Playing the Radio

1 Press **RADIO ON/SLEEP**.
2 Select **FM** or **AM** using **BAND**.
3 Tune in a station using **TUNING**.
4 Adjust volume using **VOL**.

- To turn off the radio, press **RADIO OFF/ALARM RESET/OFF**.

If you answer a call or wish to place a call while your clock radio is playing, the radio automatically "mutes"(stops playing). (See Making Calls in detail.)

- To improve radio reception
  FM: Since the antenna is encased in the AC power cord, extend the cord to improve FM reception.
  AM: Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built into the unit.

Setting the Alarm

To set the radio alarm, first tune in a station and adjust the volume.

1 While holding down **ALARM A RADIO** (for the radio) or **B BUZZER** (for the buzzer), press **TIME SET +** or **–** until the desired time appears in the display. When you release **ALARM A** or **B**, the **ALARM A** or **B** indicator stops flashing and lights up, and the current time appears in the display. The alarm will come on at the preset time and automatically turn itself off after 59 minutes.

- If you set **ALARM A** and **ALARM B** at the same desired time, only **ALARM A** will work.
- To shut off the alarm, press **RADIO OFF/ALARM RESET/OFF**.
  The alarm will come on at the preset time the next day.
- To cancel either alarm, while holding down the **ALARM A** or **ALARM B** button, press **RADIO OFF/ALARM RESET/OFF**.
- To adjust the radio alarm volume, turn **VOL (volume)**.
- To check the preset time, press **ALARM A** or **B**.

To doze a few more minutes

1 Press **SNOOZE/DATE/SLEEP OFF**.
The alarm will shut off, but will come on again after about 6 minutes. You can repeat this process as many times as you like.

To use both sleep timer and alarm function

You can fall asleep to the radio sound and you will be awakened by the radio alarm at the preset time.

1 Set the alarm. (See "Setting the Alarm")
2 Set the sleep timer. (See "Setting the Sleep Timer")

Setting the Sleep Timer

Enjoy falling asleep to the radio using the built-in sleep timer that shuts off the radio automatically at a preset time.

1 Press **RADIO ON/SLEEP**.
The radio turns on. It will go off after the preset time has passed. You can set the sleep timer of 90, 60, 45, 30 or 15 minutes.
Every push changes the display as follows.

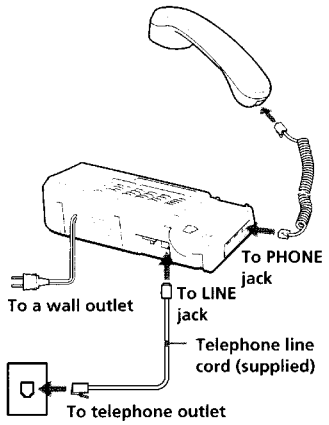
Current time → On → 90 → 60 → 15 → 30 → 45 →

The radio will play for the time you set, then shut off.

- To turn off the radio before the preset time, press **SNOOZE/DATE/SLEEP OFF**.

Connecting the phone

If your telephone jack is not a modular type, please contact your telephone company for assistance.



1 Use the handset cord (supplied) to connect the handset to the phone.
2 Plug one end of the telephone line cord (supplied) into the **LINE** jack, and the other end into a telephone outlet.
3 Connect the AC power cord into an AC outlet.
"AREA CODE =" appears on the display.

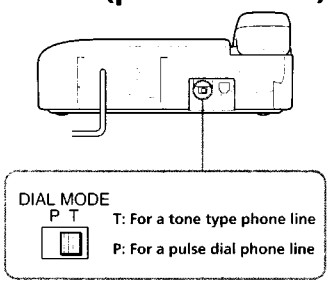
Note

To enter your area code, see "Entering your area code".

IMPORTANT INSTALLATION INSTRUCTION

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet location unless the jack is specifically designed for wet location.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

Selecting the DIAL MODE (pulse or tone)



If you do not know which setting is correct for your telephone line, check as follows.

1 Make a trial call with the **DIAL MODE** switch set to **T**.
2 If the call is connected, leave the switch at **T**.
Otherwise, set the switch to **P**.

Using Touch-Tone Services with the Pulse Dialing System

Some services require you to use touch-tone. This is not a problem if your phone already uses tone dialing. If your phone uses pulse dialing, however, you need to follow the steps below to use these services.
For details on making calls, see the "Making calls" section.

1 Dial the service's number.
2 When connected to the service, press **TONE** (✱).
3 Press the dialing keys as required.
The line will remain in tone dialing until disconnected.

Adjusting the volume

Adjusting the ringer level

The **RINGER LEVEL** switch controls the volume of the ringer. If you do not want to be disturbed by telephone calls, you can turn the ringer off.
Set the **RINGER LEVEL** switch to **H** (High), **L** (Low), or **OFF**.

To adjust the volume level of the handset during conversation

Normally set **HANDSET VOL** to **NORM**. If the sound is small set to **HIGH** and is too loud set to **LOW**.

Entering your area code

When you use this unit first, or you move to an area of the country that has a different area code, you must enter your area code.
This is necessary because the phone must distinguish local or long distance calls to properly redial calls from the Caller ID list.

1 Connect the AC power cord.
For details, see the "Telephone line connection".
"AREA CODE =" appears on the display.
2 Enter three digits of your area code using the dialing keys.
You hear a confirmation beep.

Checking the area code

Press **DIAL**.
The area code appears on the display for 20 seconds.

To change the area code

1 Press **PROGRAM**.
2 Press **DIAL**.
3 Enter a new area code using the dialing keys.

Making Calls

You can make a call with or without picking up the handset (the ON HOOK feature) and when your opponent answers, pick up the handset.

1 Pick up the handset or press **ON HOOK**.
"==TALK==" and talk time appear on the display.
2 Dial a phone number.
The phone number dialed appears on the display.

Note

• If you answer a call or wish to place a call while your clock radio is playing, the radio automatically "mutes". The radio will resume playing as soon as you have disconnected your call by replacing the handset.

Receiving Calls

1 When you hear the phone ring, pick up the handset.
The talk time appears on the display.
2 When you have finished, replace the handset in the cradle to disconnect.

Redialing a Number

You can redial the last number called with just one touch of the **REDIAL/PAUSE** button. This lets you easily redial the same number again if the line was busy.

1 Pick up the handset or press **ON HOOK**.
"==TALK==" and the talk time appear on the display.
2 Press **REDIAL/PAUSE**.
The last sequence of digits dialed will be automatically redialed.
The digits and the talk time appear on the display.

Note

You can redial a phone number of up to 32 digits.

To find out the last phone number dialed

With the handset placed in the cradle, press **REDIAL/PAUSE**.
The number appears on the display.

To erase the last phone number dialed

With the handset placed in the cradle, press **REDIAL/PAUSE** twice.
The number is erased from memory and a confirmation beep sounds.

Putting a call on hold

The **HOLD** button allows you to temporarily suspend a phone conversation without disconnecting the call. When a call is on hold, you will not be able to hear the caller, and the caller will not be able to hear you.

1 Press **HOLD**.
You can place the handset back on the cradle.
2 To resume the conversation, pick up the handset.
If you did not place the handset back on the cradle, press **HOLD**.

Notes

• If you pick up another phone connected to the same phone line, the hold will be automatically released and you will be able to resume conversation on that phone.
• While the call is put on hold, you cannot receive incoming calls and cannot hear the "call waiting" tone if you have this service.

Using Call Waiting (FLASH feature)

If you subscribe to a "call waiting service", press **CALL WAITING/FLASH** to switch from one party to the other.

Note

If you do not have this service, the line will be disconnected when **CALL WAITING/FLASH** is pressed.

Speed Dialing

You can dial with a touch of a few keys by storing a phone number on a dialing key.

Storing Phone Numbers

1 Press **PROGRAM**.
"== PROGRAM ==" appears on the display.
2 Press **SPEED**.
3 Press one of the dialing keys ((1) to (5)) to store a phone number on.
If the telephone number is already stored on the button, the stored number appears on the display.
4 Enter the phone number you want to store.
You can enter a number up to 16 digits, including a tone and a pause, each of which is counted as one digit.
5 Press **PROGRAM**.
You will hear a long confirmation beep, and the number is stored.

To change a programmed number

Program a new number using the procedure above. The old number will be erased automatically.

Notes

• Do not let more than 20 seconds elapse between any two steps of the programming procedure.
• If you enter a wrong number, press **PROGRAM** first and then go back to step **1**.

To store a number to be dialed via Private Branch Exchange (PBX)

Before entering a phone number in Step **4**, do as follows:

1 Enter the outside line access digit (e.g., 9).
2 Press **REDIAL/PAUSE**.

Making Call Through Speed Dialing

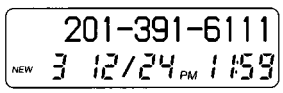
1 Pick up the handset, or press **ON HOOK**.
2 Press **SPEED**.
3 Press the desired speed dialing number ((1) to (5)). The phone number stored in the speed dialing number will be dialed.

What is Caller ID

Caller ID allows the caller's phone number to be shown on the display before you answer the call. In order to use this feature, you must first subscribe to Caller ID service with your telephone company. The name of this service may vary depending on your telephone company.
Before using this feature, please make sure you have properly entered your area code (see "Entering the area code").

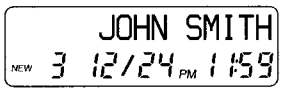
When you receive a call

The phone number appears on the display with the day and time as shown in the following example.



You received a call with the number 201-391-6111 at 11:59 PM on December 24th.

If your Caller ID service includes caller name service, the caller's name appears on the display (up to 16 letters) with the day and time as shown in the following example. To switch to the phone number display, press DISPLAY.



You received a call from John Smith at 11:59 PM on December 24th.

When you answer the call, the lower line of the display will change to the talk time.

Note

The day and time information is received from your telephone company. If the call came from a different time zone, it will still show the time in your area. There is no built-in clock.

Important notes

The caller's name or phone number will not be displayed in the following cases:

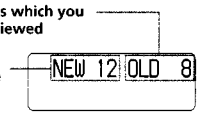
- The call is made through a telephone company which does not offer Caller ID service (including international calls). In this case, "OUT OF AREA" will be displayed.
- If the Caller ID was "blocked". For privacy reasons, many states allow callers the option to prevent his or her telephone data from being displayed on the other party's Caller ID display. If you receive a call which was "blocked" in this way, "PRIVATE" will be shown on the display.
- If the call is from an office which uses multiple lines, the phone number displayed may not match the number you use to call the extention.

Looking at the Caller ID list

The phone stores the data of the last 20 calls received including "OUT OF AREA" and "PRIVATE" calls. It keeps track of all calls received; even if they were not answered.

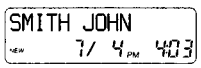
Viewing the Caller ID list

When the phone is not in use, the display shows the following.



You can look through the data in the Caller ID list to check the number and/or name of the calls received.

1 Press –.
The data of the newest call appears for 20 seconds.



2 Press – to display older data or + to display newer data.

Notes

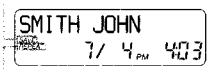
- If you have not viewed the "NEW 1" data, other "NEW" data will not be counted as the "OLD" data even after you have viewed them.
- When you have checked all the data by pressing +, 5 short beeps sound and "TOP OF LIST" appears.
- When you have checked all the data by pressing –, 5 short beeps sound and "END OF LIST" appears. If you press – again, five short error beeps will sound.

Tip

You can view the Caller ID list during conversation also by following the steps above.

About the "REPEAT" and "SAVE" display

"SAVE" appears if the call is "saved" (see below).



"REPEAT" appears if there are more than two calls from the same caller. The older data will be replaced by the new data, so the calls are counted as only one call (for "NEW" calls only).

Note

If "OUT OF AREA" or "PRIVATE" calls are made for more than 2 calls, "REPEAT" will be displayed and only the new data will be replaced.

Saving the phone numbers in the Caller ID list

As the phone keeps the data of up to 20 calls, if a 21st call comes in, the phone erases the oldest data automatically.
To prevent important data from being erased, you can "save" them. The "saved" data will not be erased until you erase them manually (see "Erasing the data from the Caller ID list").
You can save up to 10 phone numbers.

1 Search the phone number you want to save from the Caller ID list by pressing + or –.

2 Press **PROGRAM**.
You hear a confirmation beep and "SAVE" appears in front of the phone number.

Note

If you try to save the 11th phone number, you hear five short error beeps and you cannot save the phone number. To save another phone number, erase one of the saved phone number (see "Erasing the data from the Caller ID list").

Erasing the data from the Caller ID list

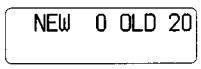
To erase the phone number one by one

1 First press –, and then press + or – to display the phone number you want to erase.

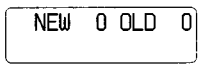
2 Press **ERASE**.
You hear a confirmation beep and the data is erased.

To erase the entire list at once

1 Make sure that no data or "END OF LIST" is displayed.



2 Press **ERASE**.
You hear a confirmation beep and the entire list is erased.



Notes

- If you try to erase the entire list when there remains any new calls, you hear five short error beeps and you cannot erase the list.
- The "saved" numbers (see "Saving the phone numbers in the Caller ID list") are not erased even if you erase the entire list. To erase the "saved" numbers in the Caller ID list, do as described in "To erase the phone number one by one."

Using the Caller ID list

You can easily call back a number from the Caller ID list by pressing the DIAL button.
You can also store a number from the Caller ID list into one of the the one-touch dialing buttons.

Calling back a number from the Caller ID list

1 First press –, and then press + or – to select the number you want to dial.

2 Press **DIAL**.
The phone is set to the ON HOOK mode and automatically dials the number displayed.

Note

You can also make a call by following the same procedure after you pick up the handset.

Using Caller ID with call waiting service

In order to use the "Caller ID with call waiting" service, you need to subscribe to a telephone company which offers Caller ID service combined with "call waiting" service.
When a new call comes in, the name or the phone number of the new caller appears on the display.
Before you use this feature, make sure that you have subscribe to both Caller ID service and "call waiting" service with your telephone company and also ask the company if it offers Caller ID service combined with "call waiting" service.

When a new call comes in while you are talking, you hear two short beeps from the handset and the volume is momentarily muted. "CALL WAITING"appears on the display with a short beep from the speaker of the base unit and then the caller's name or phone number of the new call appears on the display for about 20 seconds.

1 When you want to switch to a new call, press **CALL WAITING/FLASH**.
The current caller is put on hold and you can answer the new call.

2 When you want to switch back to the first caller, press **CALL WAITING/FLASH** again.
Pressing **CALL WAITING/FLASH** lets you switch between the two calls.

If you have not subscribed to "Caller ID with call waiting" service

Proceed as follows:

1 Press **PROGRAM**.

2 Press **CALL WAITING/FLASH** for 2 seconds.
"Caller ID with call waiting is OFF" appears on the display.
When you subscribe to this service later, set the phone ON for the service by following the same steps.

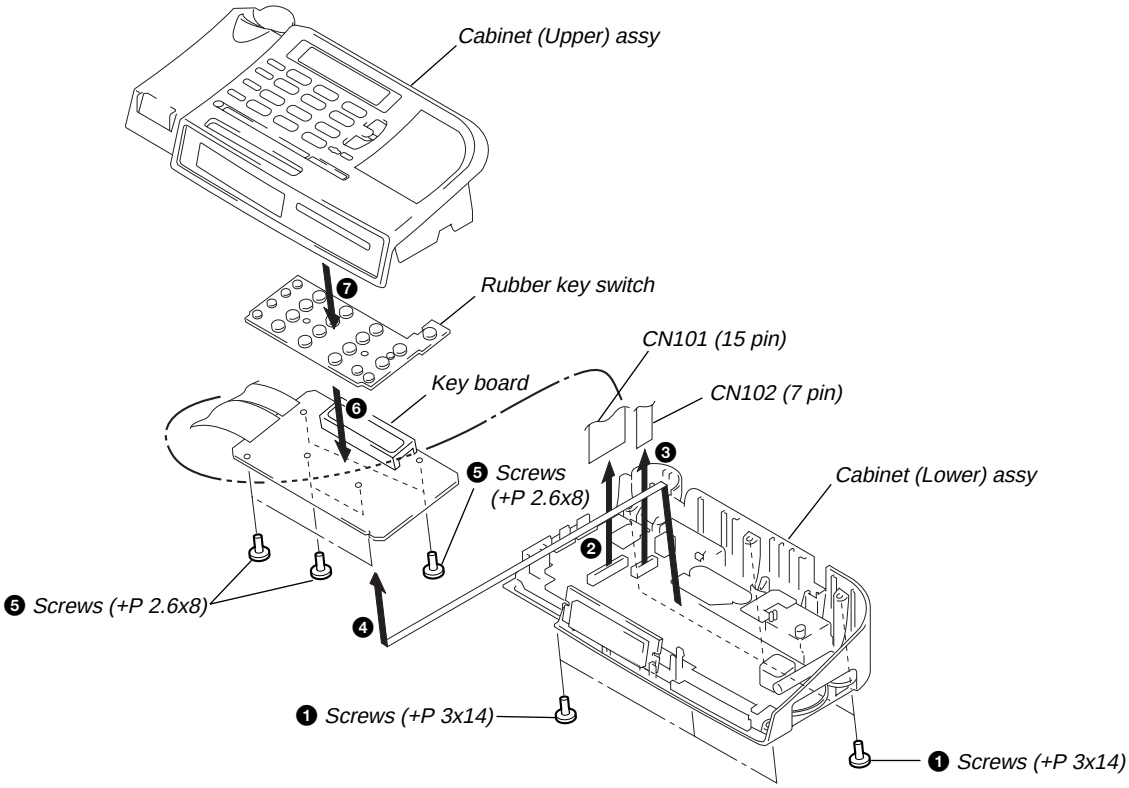
Note

If **CALL WAITING/FLASH** is pressed when there is no new incoming call, the call will be disconnected.

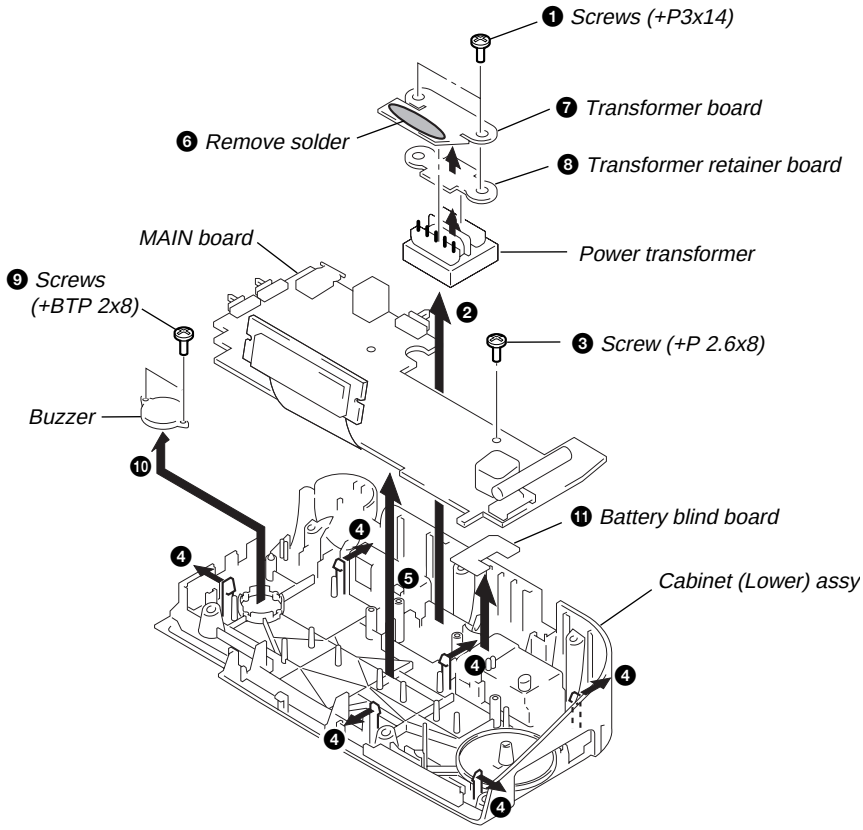
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

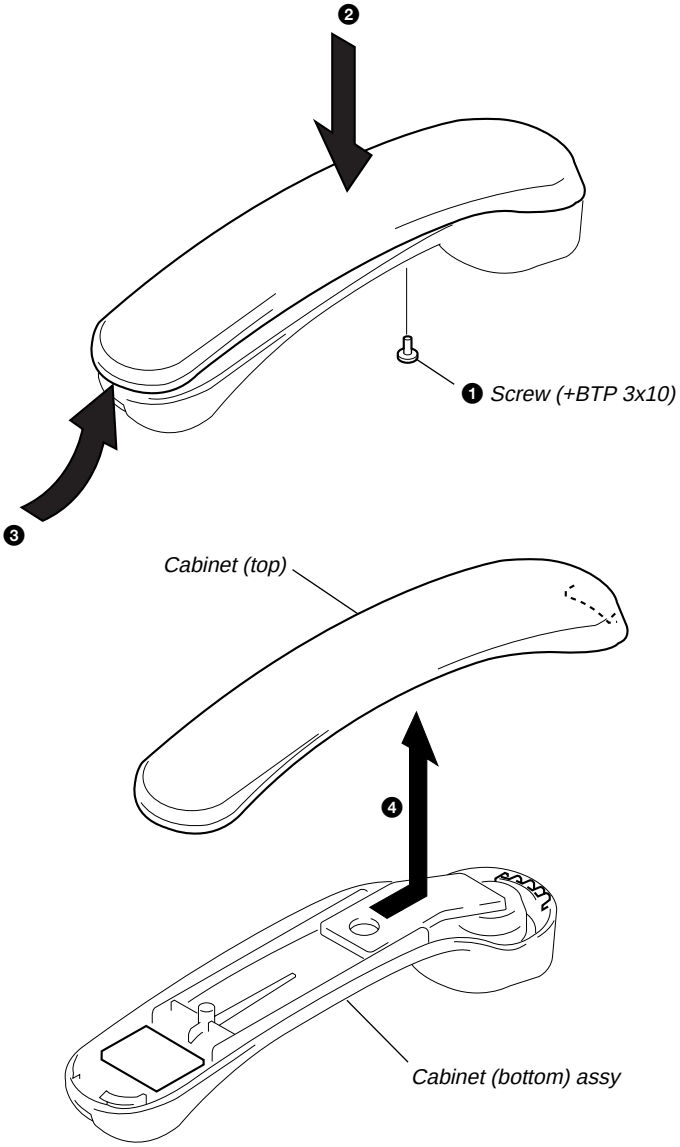
2-1. KEY BOARD, CABINET (UPPER) ASSY REMOVAL



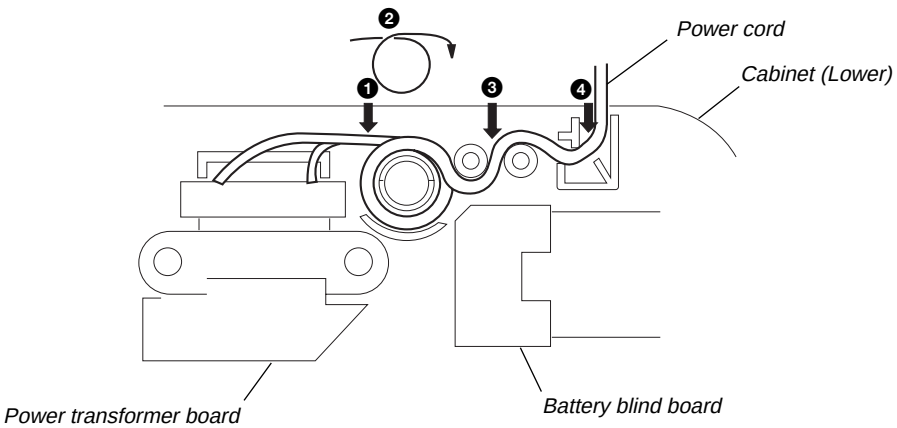
2-2. MAIN BOARD, TRANSFORMER BOARD, TRANSFORMER RETAINER BOARD, BATTERY BLIND BOARD REMOVAL



2-3. CABINET (TOP) REMOVAL

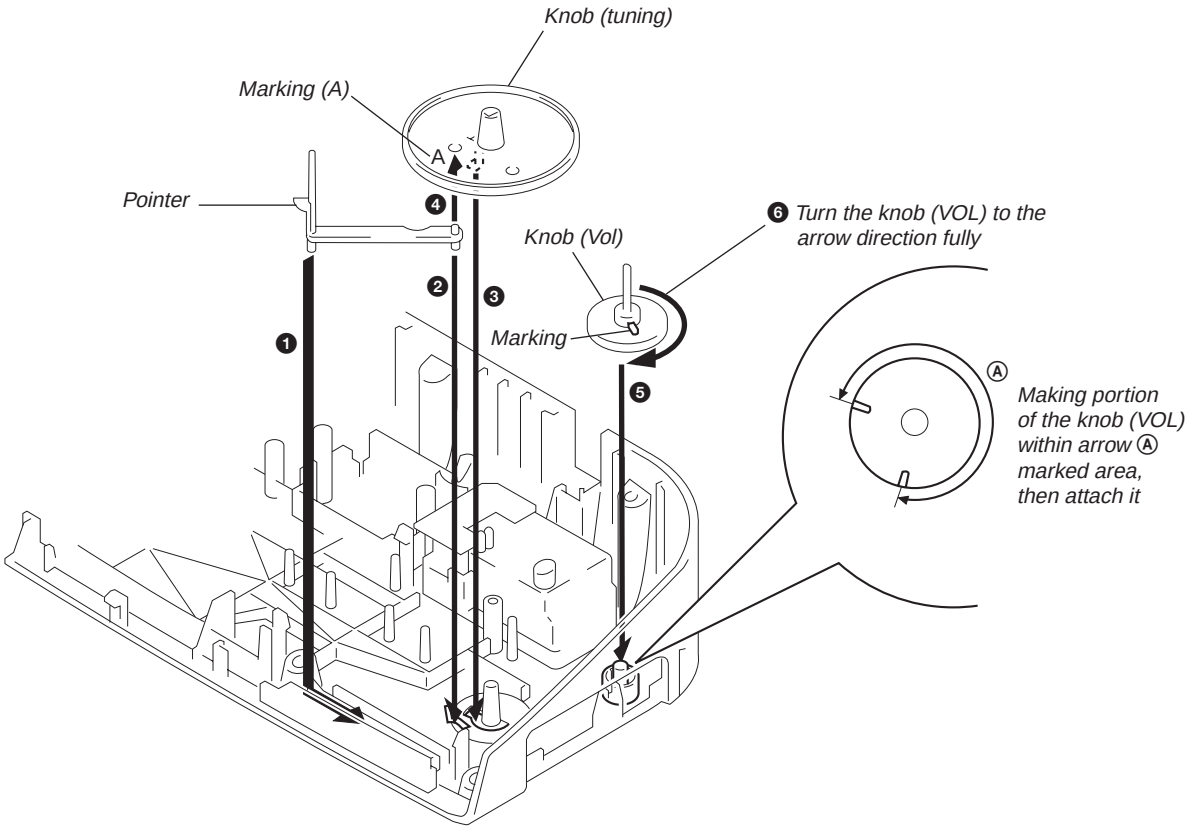


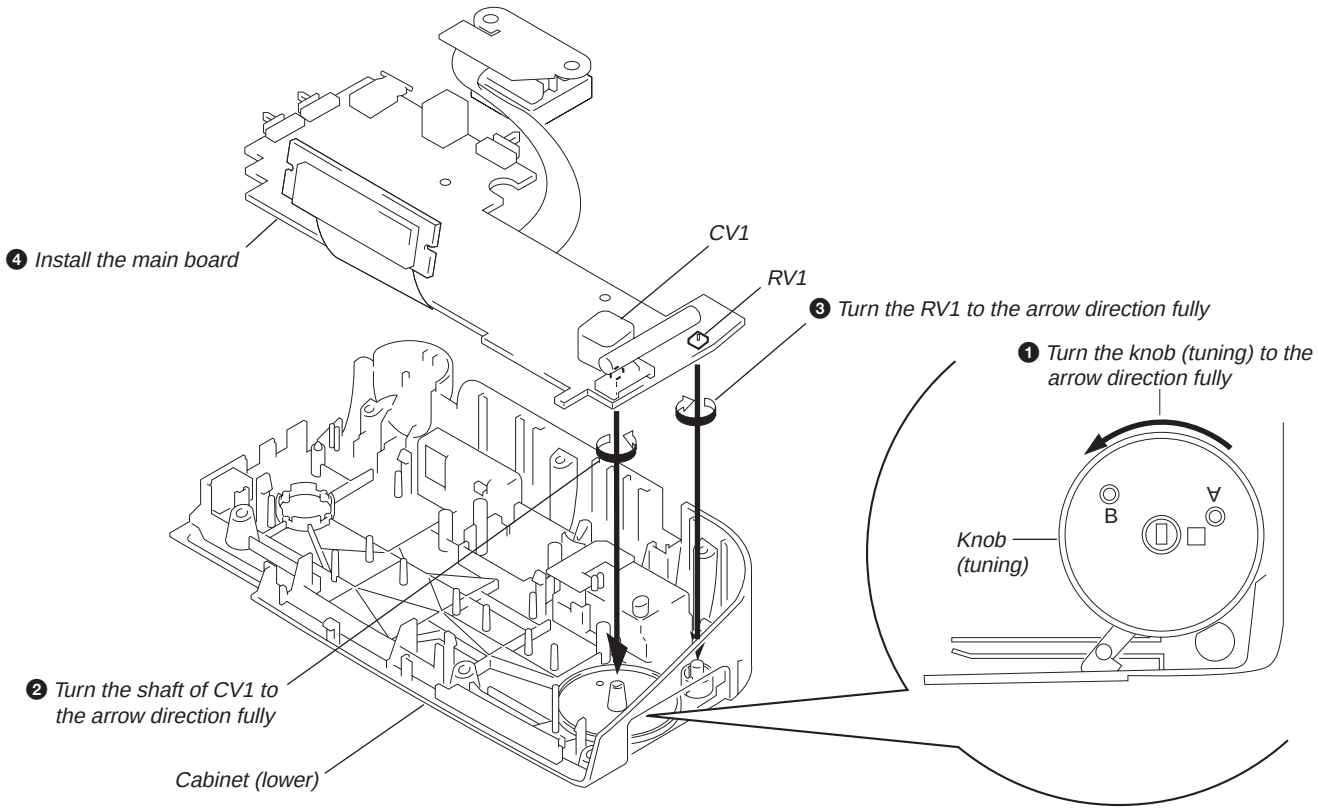
INSTALLATION POWER CORD



SECTION 3
DIAL POINTER INSTALLATION

Note : Follow the installation procedure in the numerical order given.




4 Install the main board
CV1
RV1
3 Turn the RV1 to the arrow direction fully
1 Turn the knob (tuning) to the arrow direction fully
B
A
Knob (tuning)
2 Turn the shaft of CV1 to the arrow direction fully
Cabinet (lower)

SECTION 4
TEST MODE

1. Key Input Test
(1) Press the [PROG] , [ERASE] , [*] [0], [#] buttons simultaneously.
(2) A beep tone sounds and test mode is now set.
(3) Press the [1] button to set the test mode to key input.
(4) A beep tone sounds each time the [CALL W] [AITIN/FLASH] , [SPEED] , [REDIAL/P] [AUSE] ····· are pressed (order button is pressed does not matter). Except for the [ON HOOK] button.

2. EEPROM Memory Test & Erasure
(1) Press the [PROG] , [ERASE] , [*] [0], [#] buttons simultaneously.
(2) A beep tone sounds and test mode is now set.
(3) Press the [2] button to set the EEPROM test mode.
(4) A beep tone sounds, the message [EEPROM TESTING] appears and testing starts.

3. LCD Test
(1) Press [3] button to set LCD test mode. All LCDs light up.

4. Power Failure Test
(1) Press the [PROG] , [ERASE] , [*] [0], [#] buttons simultaneously.
(2) A beep tone sounds and test mode is now set.
(3) Remove the power cord from the plug socket (outlet) and plug it back in once again. The following message appears on the LCD display.

POWER FAIL OK

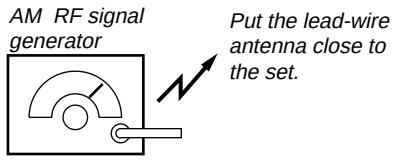
SECTION 5
ELECTRICAL ADJUSTMENTS

TUNER SECTION

- RADIO switch : ON
- VOLUME : MIN

AM Section

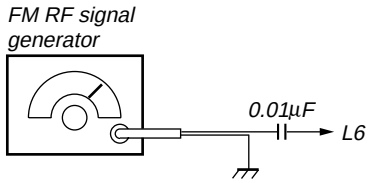
BAND : AM



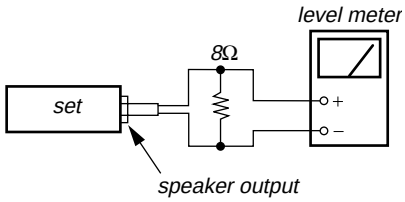
30% amplitude modulation by 400Hz signal.
Output level : as low as possible

FM Section

BAND : FM



22.5kHz frequency deviation by 400Hz signal.
Output level : as low as possible



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ALIGNMENT	
Adjust for a maximum reading on level meter.	
T1	455kHz

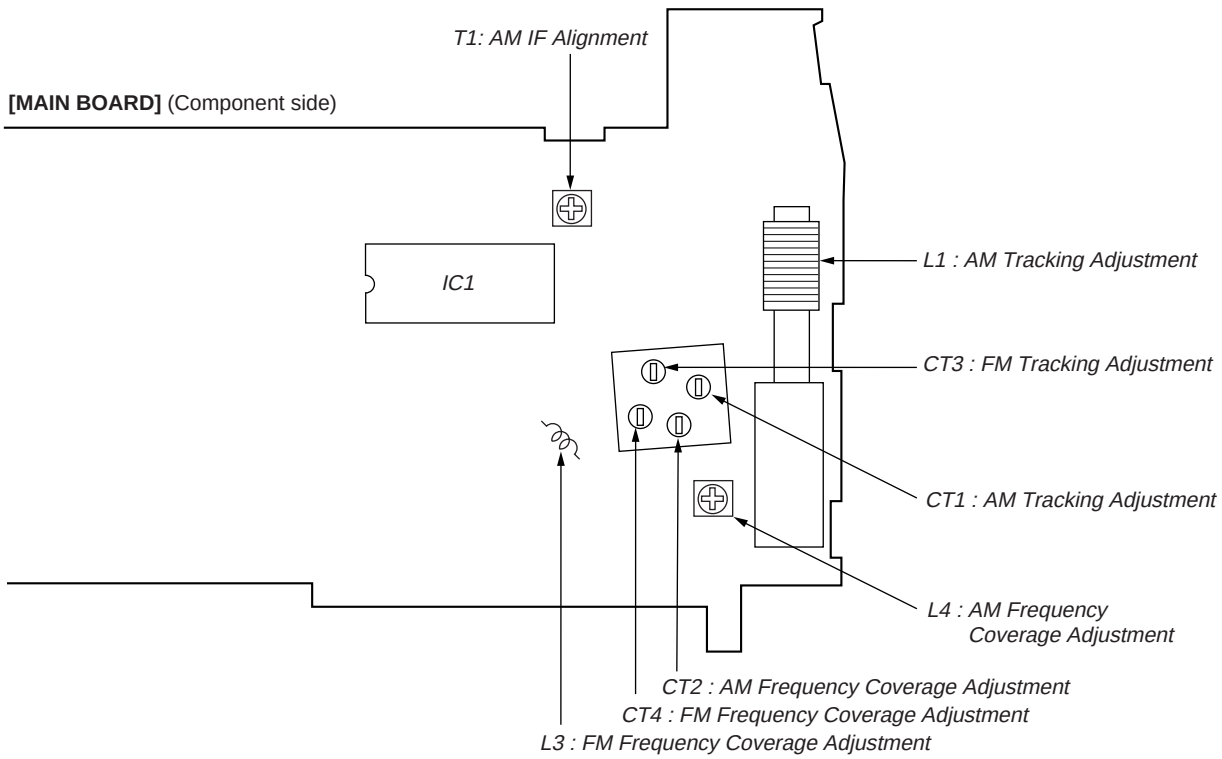
AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L4	520kHz
CT2	1,650kHz

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L1	600kHz
CT1	1,400kHz

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3	86.5MHz
CT4	109.5MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
confirmation	86.5MHz
CT3	109.5MHz

Adjustment Location :


T1: AM IF Alignment
[MAIN BOARD] (Component side)
IC1
L1 : AM Tracking Adjustment
CT3 : FM Tracking Adjustment
CT1 : AM Tracking Adjustment
L4 : AM Frequency Coverage Adjustment
CT2 : AM Frequency Coverage Adjustment
CT4 : FM Frequency Coverage Adjustment
L3 : FM Frequency Coverage Adjustment

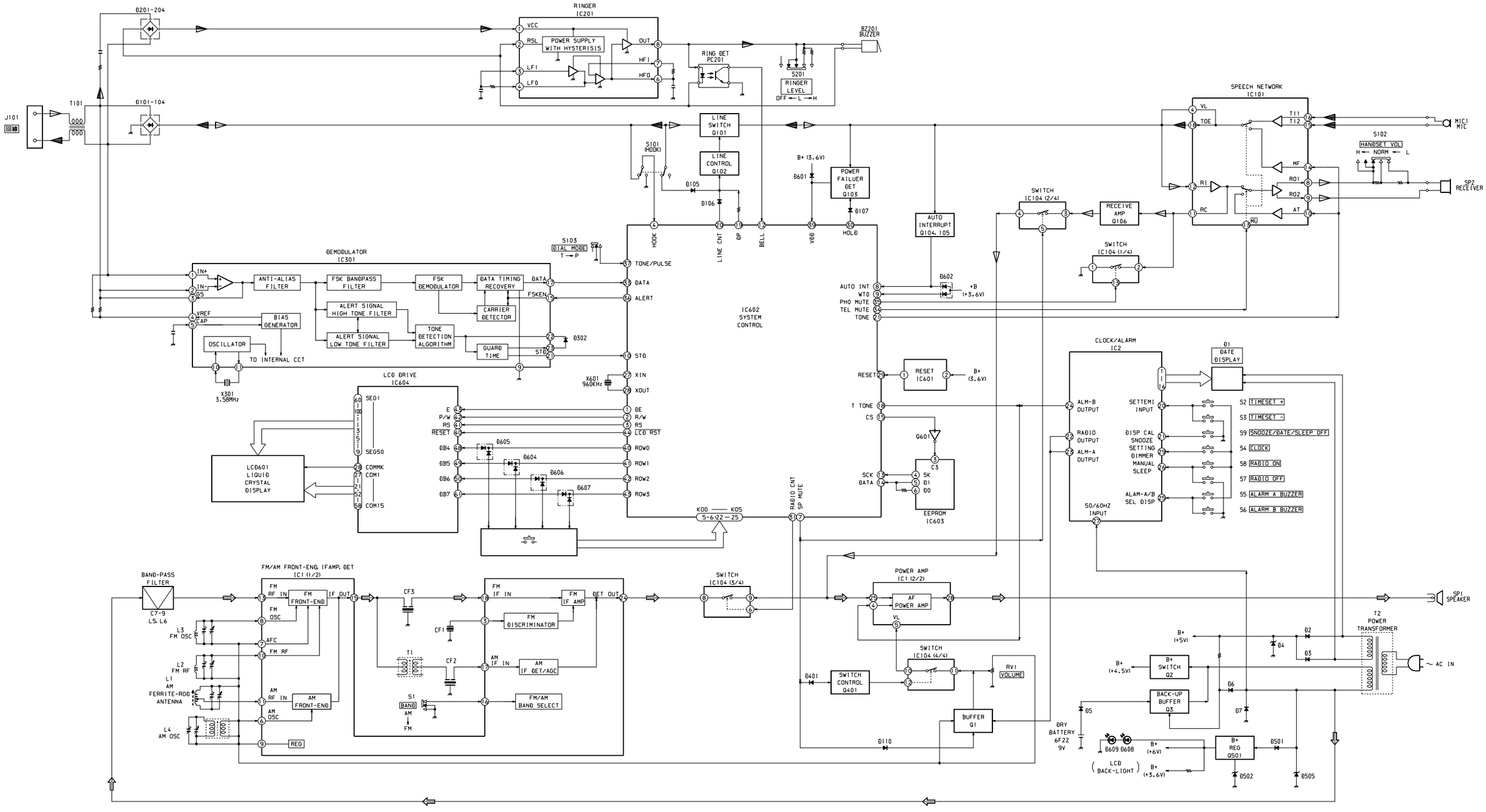
SECTION 6
DIAGRAMS

6-1. EXPLANATION OF IC TERMINALS

IC602 TMP47C853F (SYSTEM CONTROL)

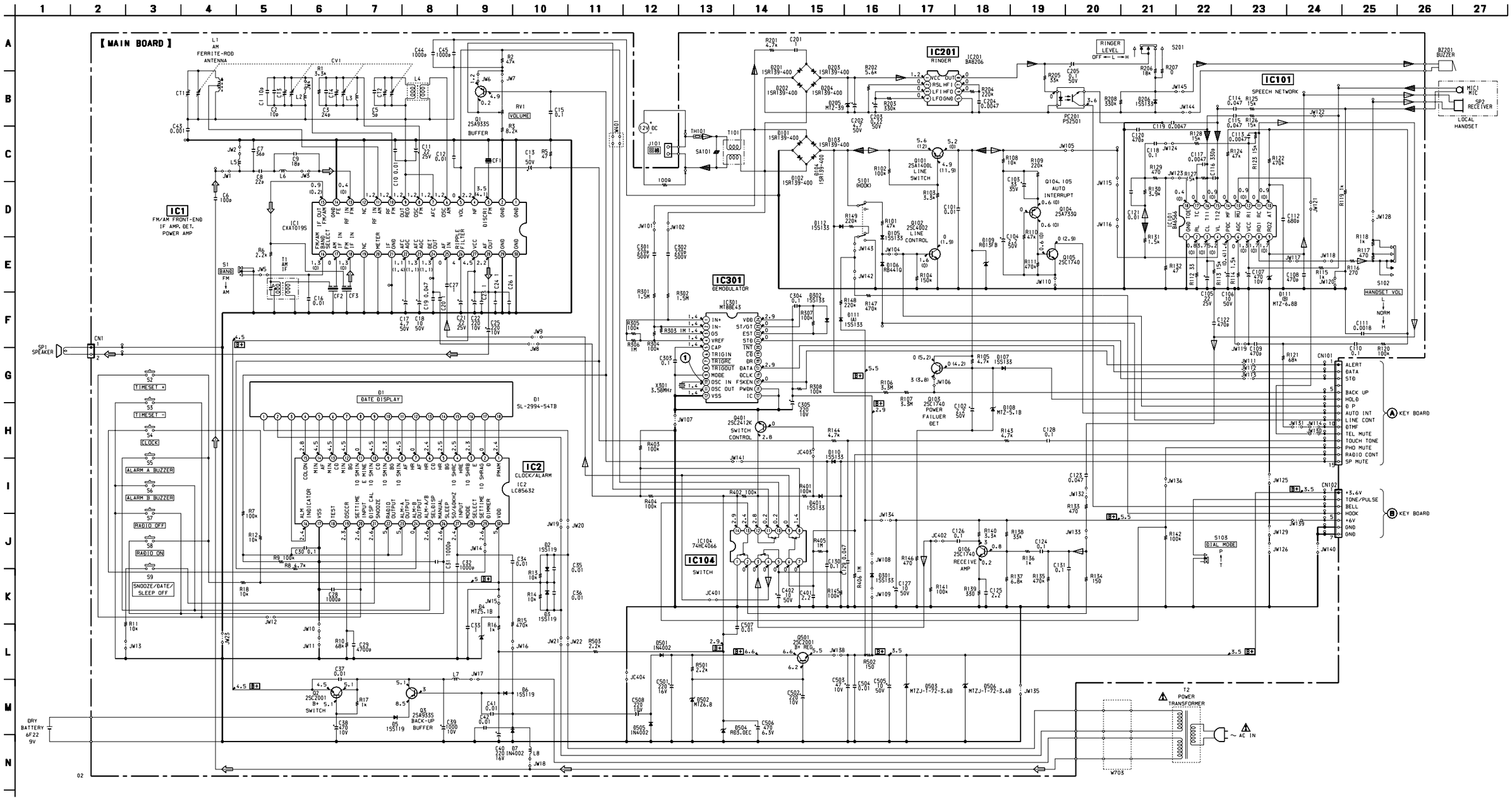
Pin No.	Pin name	I/O	Description
1	DE	O	Data enable output terminal.
2	R/W	O	Read/write select signal output. 0 : Write, 1 : Read
3	RS	O	Register select signal output.
4	HOOK	I	Hook switch DET.
5	KO4	I	Key return input.
6	KO5	I	Key return input.
7	SP MUTE	O	Mute signal output.
8	AUTO INT	I	Auto initial DET terminal.
9	WT0	–	Not used (“H” : Level).
10	STD	I	Dual tone alert signal delayed steering input.
11	XT IN	–	Not used (Open).
12	BELL	I	Ringer signal detect.
13	SCK	O	Serial clock output to EEPROM.
14	DATA	I/O	Serial data input/output terminal.
15	CS	O	Chip select output to EEPROM.
16	VSS	–	Ground.
17	NC	–	Not used (Open).
18	T TONE	O	Beep signal output.
19	DP	O	Dial pulse control signal output.
20	LINE CNT	O	Tel line control signal output.
21	TONE	O	DTMF signal output.
22	KO0	I	Key return input.
23	KO1	I	Key return input.
24	KO2	I	Key return input.
25	KO3	I	Key return input.
26	TEST	I	Test mode terminal. “L” : Normal
27	X IN	I	System clock oscillator (960kHz).
28	X OUT	O	System clock oscillator (960kHz).
29	RESET	I	System reset terminal.
30	HOLD	I	Power failuer DET terminal.
31	RADIO CNT	O	Radio signal output control.
32	BACK-UP	I	Back-up DET terminal.
33	DATA	I	Data input from IC301.
34	TEL MUTE	O	Mute signal output to speech network IC (IC101).
35	PH0 MUTE	O	Receiver signal mute output.
36	ALERT	O	FSK enable output.
37	TONE/PULSE	I	Tone/pulse select input terminal.
38	NC	–	Not used (Open).
39	VDD	–	Power supply (3V).
40	ROW 0	O	Key source output.
41	ROW 1	O	Key source output.
42	ROW 2	O	Key source output.
43	ROW 3	O	Key source output.
44	$\overline{\text{LCD RST}}$	O	Reset signal output to LCD driver IC (IC604).

6-2. BLOCK DIAGRAM



- Signal path.
  - ⇨ : FM
  - ▷ : RX (From Tel Line)
  - ▶ : TX (To Tel Line)
  - ➤ : bell

6-4. SCHEMATIC DIAGRAM (MAIN SECTION) ● Refer to page 23 for IC Block Diagrams.



Note:

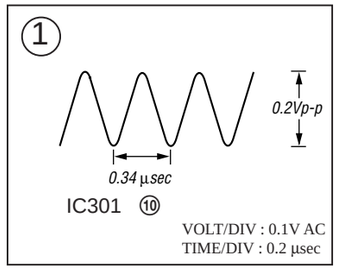
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.

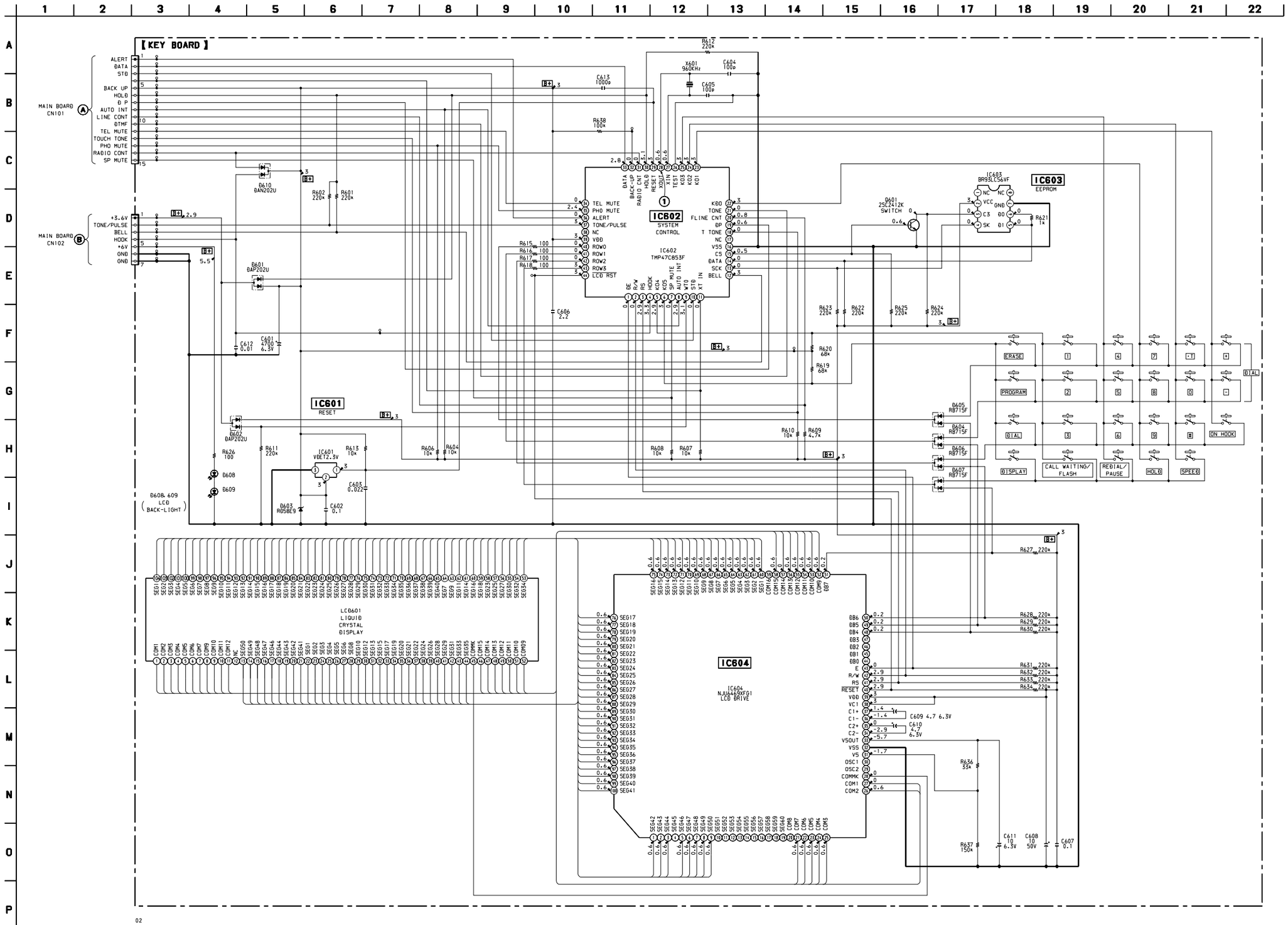
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- B + : B+ Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM (RADIO SECTION)
  TALK (TELEPHONE SECTION)
  ( ) : AM (RADIO SECTION)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.
  ⇨ : FM
  ▷ : RX (From Tel Line)
  ▶ : TX (To Tel Line)
  ◥ : bell

● WAVEFORM

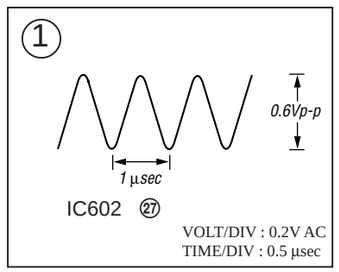




Note:

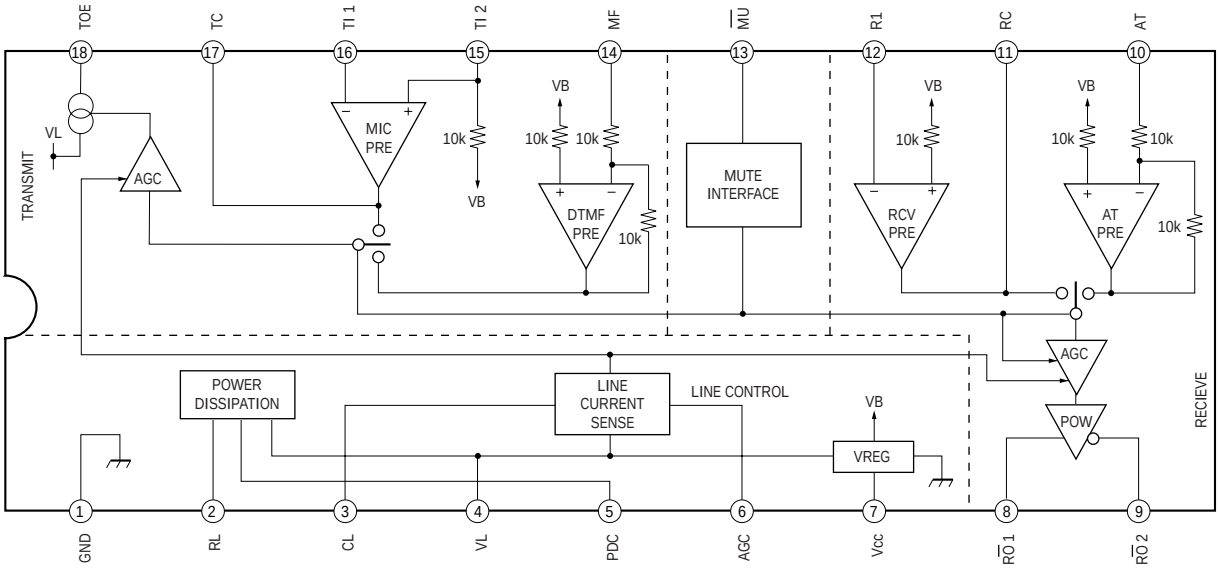
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B + : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM (RADIO SECTION)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

● **WAVEFORM**

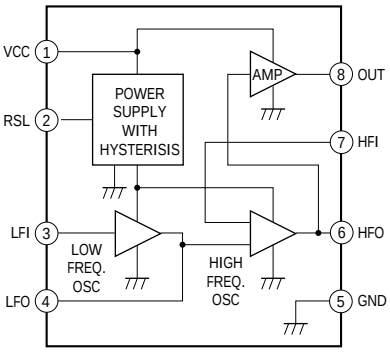


● IC BLOCK DIAGRAMS

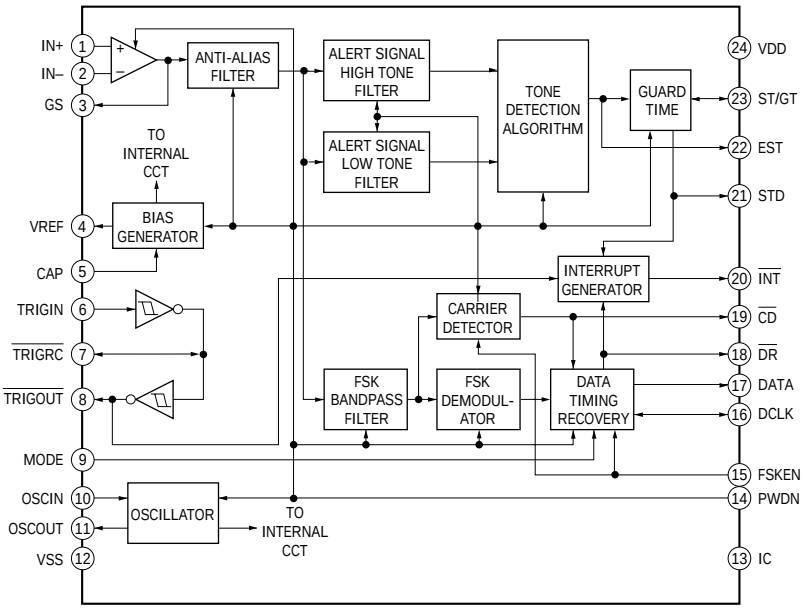
IC101 BA6566



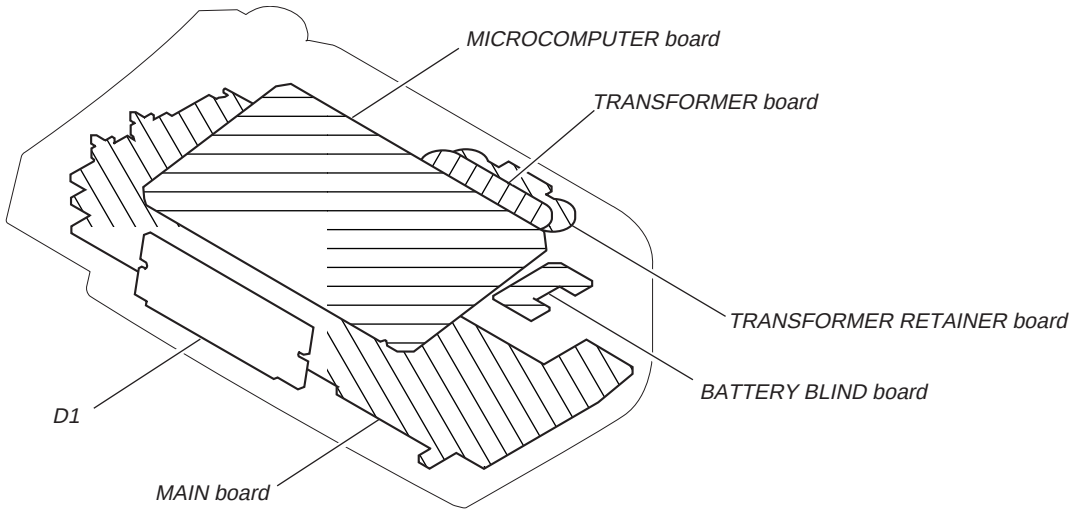
IC201 BA8206



IC301 MT88E43ASR



● CIRCUIT BOARDS LOCATION



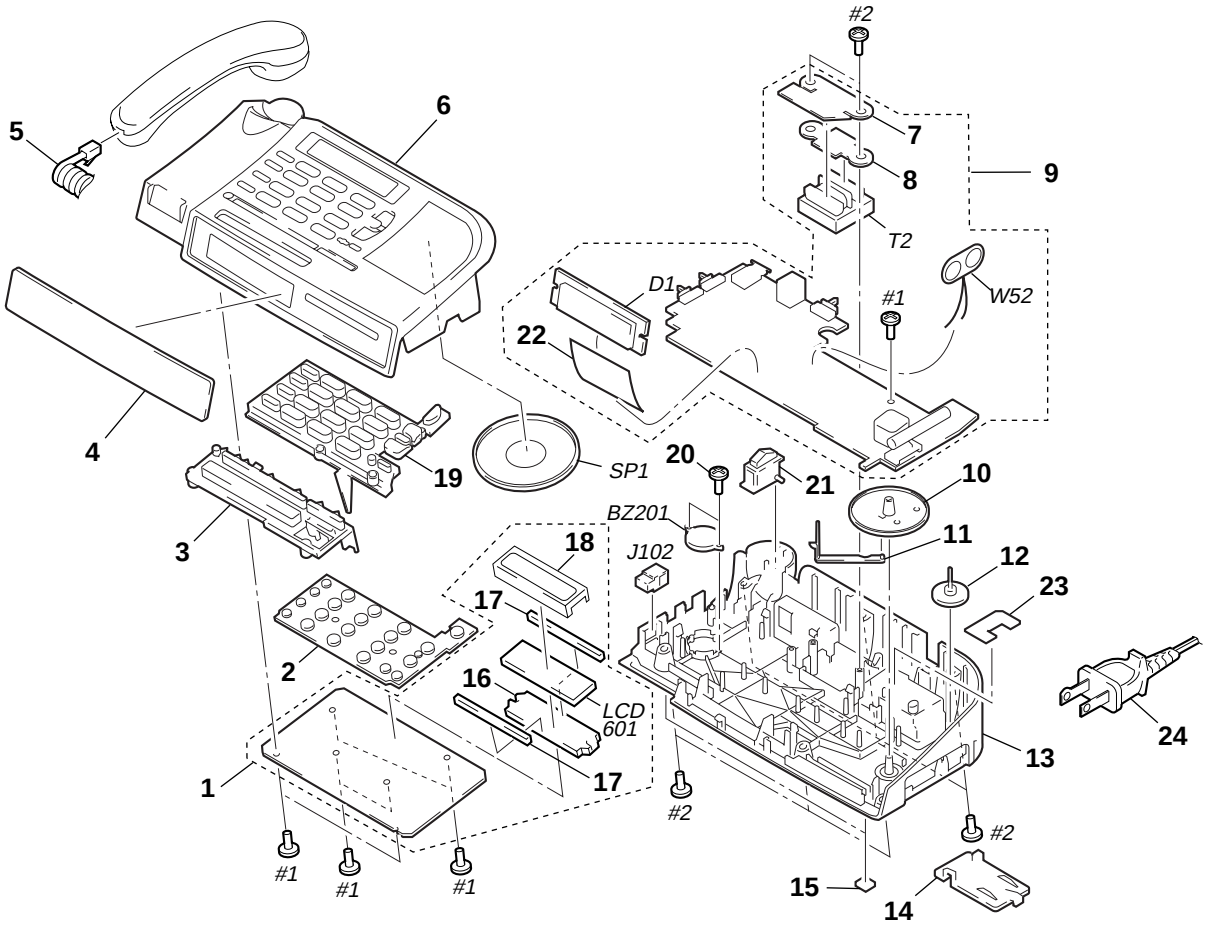
SECTION 7
EXPLODED VIEWS

NOTE :
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

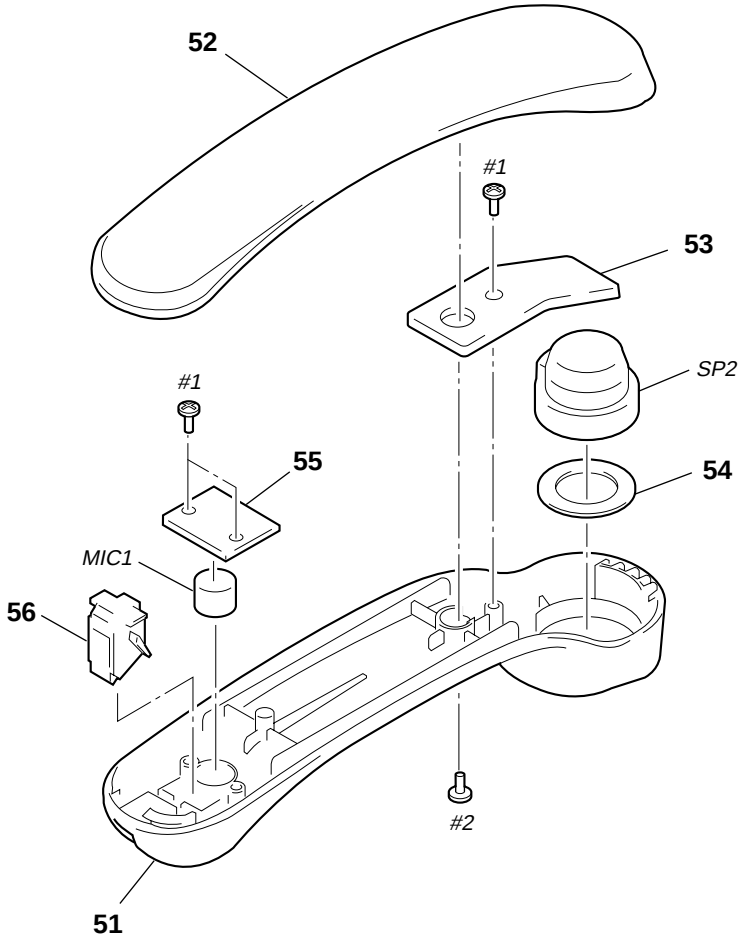
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. BASE UNIT SECTION



Ref. No.	Part No.	Description	Remark
* 1	A-3679-977-A	KEY BOARD, COMPLETE	
2	1-771-368-11	SWITCH, RUBBER KEY	
3	3-021-131-01	BUTTON (CLOCK)	
4	3-021-129-01	PLATE (CLOCK), TRANSPARENT	
5	1-696-455-71	CORD, CURL	
6	X-3375-548-1	CABINET (UPPER) ASSY	
* 7	1-668-384-11	TRANSFORMER BOARD	
* 8	1-669-395-11	TRANSFORMER RETAINER BOARD	
* 9	A-3679-978-A	MAIN BOARD, COMPLETE	
10	3-922-000-01	KNOB (TUNING)	
11	3-922-002-11	POINTER	
12	3-919-268-01	KNOB (VOL)	
13	3-021-128-01	CABINET (LOWER)	
14	3-369-135-21	LID, BATTERY CASE	
15	3-368-852-01	FOOT	
16	3-021-134-01	HOLDER, LCD	
17	1-694-420-11	CONDUCTIVE BOARD, CONNECTION	
* 18	3-021-138-01	PLATE (LCD), SHIELD	
19	3-021-132-01	BUTTON (TEL)	
20	3-371-765-21	SCREW (2X8), +BTP	
21	3-021-133-01	HOOK	
22	1-777-242-11	CORD, CONNECTION	
* 23	1-669-397-11	BATTERY BLIND BOARD	
⚠24	1-769-339-22	CORD, POWER	
BZ201	1-505-978-11	PIEZOELECTRIC BUZZER	
D1	1-810-027-11	DIODE SL-2994-54TB (DATE DISPLAY)	
J102	1-770-504-11	JACK, MODULAR (TO HANDSET)	
LCD601	1-803-112-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP1	1-504-748-21	SPEAKER (6.6cm)	
⚠T2	1-429-460-11	TRANSFORMER, POWER	
W52	1-535-804-21	SNAP, BATTERY	

7-2. HAMDSET SECTION



Ref. No.	Part No.	Description	Remark
51	3-021-136-01	HAND SET (LOWER)	
52	3-021-135-01	HAND SET (UPPER)	
* 53	3-021-137-01	WEIGHT	
54	3-380-401-01	SPACER (SPEAKER)	
* 55	1-669-396-11	MICROPHONE RETAINER BOARD	

Ref. No.	Part No.	Description	Remark
56	1-770-505-11	JACK,MODULAR	
MIC1	1-542-161-11	MICROPHONE, ELECTRET CONDENSER	
SP2	1-550-648-11	RECEIVER, DYNAMIC	

KEY

SECTION 8
ELECTRICAL PARTS LIST

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE :Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3679-977-A	KEY BOARD, COMPLETE			
		**********			
	1-694-420-11	CONDUCTIVE BOARD, CONNECTION			
	3-021-134-01	HOLDER, LCD			
*	3-021-138-01	PLATE (LCD), SHIELD			
		< CAPACITOR >			
C601	1-126-918-11	ELECT	4700uF	20%	6.3V
C602	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C603	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C604	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C605	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C606	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C607	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C608	1-126-964-11	ELECT	10uF	20%	50V
C609	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C610	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C611	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C612	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C613	1-101-001-00	CERAMIC	0.001uF		50V
		< DIODE >			
D601	8-719-941-09	DIODE DAP202U			
D602	8-719-941-09	DIODE DAP202U			
D603	8-719-109-89	DIODE RD5.6ESB2			
D604	8-719-988-82	DIODE RB715F			
D605	8-719-988-82	DIODE RB715F			
D606	8-719-988-82	DIODE RB715F			
D607	8-719-988-82	DIODE RB715F			
D608	8-719-991-09	LED SLP381F-51-A (LCD BACK-LIGHT)			
D609	8-719-991-09	LED SLP381F-51-A (LCD BACK-LIGHT)			
D610	8-719-941-86	DIODE DAN202U			
		< IC >			
IC601	8-759-440-91	IC S-80723SL-AL-T1			
IC602	8-759-529-21	IC TMP47C853F-K247			
IC603	8-759-535-04	IC BR93LC56F-E2			
IC604	8-759-529-23	IC NJU6469LFG1			
		< LIQUID CRYSTAL DISPLAY >			
LCD601	1-803-112-11	DISPLAY PANEL, LIQUID CRYSTAL			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q601	8-729-620-06	TRANSISTOR 2SC3052-EF			
		< RESISTOR >			
R601	1-216-105-11	RES,CHIP	220K	5%	1/10W
R602	1-216-105-11	RES,CHIP	220K	5%	1/10W
R604	1-216-073-00	METAL CHIP	10K	5%	1/10W
R606	1-216-073-00	METAL CHIP	10K	5%	1/10W
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W
R608	1-216-073-00	METAL CHIP	10K	5%	1/10W
R609	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R610	1-216-073-00	METAL CHIP	10K	5%	1/10W
R611	1-216-105-11	RES,CHIP	220K	5%	1/10W
R612	1-216-105-11	RES,CHIP	220K	5%	1/10W
R613	1-216-073-00	METAL CHIP	10K	5%	1/10W
R615	1-216-025-11	RES,CHIP	100	5%	1/10W
R616	1-216-025-11	RES,CHIP	100	5%	1/10W
R617	1-216-025-11	RES,CHIP	100	5%	1/10W
R618	1-216-025-11	RES,CHIP	100	5%	1/10W
R619	1-216-093-00	METAL CHIP	68K	5%	1/10W
R620	1-216-093-00	METAL CHIP	68K	5%	1/10W
R621	1-216-049-11	RES,CHIP	1K	5%	1/10W
R622	1-216-105-11	RES,CHIP	220K	5%	1/10W
R623	1-216-105-11	RES,CHIP	220K	5%	1/10W
R624	1-216-105-11	RES,CHIP	220K	5%	1/10W
R625	1-216-105-11	RES,CHIP	220K	5%	1/10W
R626	1-216-025-11	RES,CHIP	100	5%	1/10W
R627	1-216-105-11	RES,CHIP	220K	5%	1/10W
R628	1-216-105-11	RES,CHIP	220K	5%	1/10W
R629	1-216-105-11	RES,CHIP	220K	5%	1/10W
R630	1-216-105-11	RES,CHIP	220K	5%	1/10W
R631	1-216-105-11	RES,CHIP	220K	5%	1/10W
R632	1-216-105-11	RES,CHIP	220K	5%	1/10W
R633	1-216-105-11	RES,CHIP	220K	5%	1/10W
R634	1-216-105-11	RES,CHIP	220K	5%	1/10W
R636	1-216-085-00	METAL CHIP	33K	5%	1/10W
R637	1-216-101-00	METAL CHIP	150K	5%	1/10W
R638	1-216-097-11	METAL CHIP	100K	5%	1/10W
		< VIBRATOR >			
X601	1-567-902-11	OSCILLATOR, CERAMIC (960kHz)			

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Ref. No.	Part No.	Description			Remark
*	A-3679-978-A	MAIN BOARD, COMPLETE			
		**********			
	1-535-804-21	SNAP, BATTERY			
	1-769-339-22	CORD, POWER			
	1-777-242-11	CORD, CONNECTION			
		< CAPACITOR >			
C1	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C2	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C5	1-163-088-00	CERAMIC CHIP	5PF		50V
C6	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C7	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C8	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-128-551-11	ELECT	22uF	20%	25V
C12	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C13	1-126-160-11	ELECT	1uF	20%	50V
C15	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C16	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C17	1-126-963-11	ELECT	4.7uF	20%	50V
C18	1-126-964-11	ELECT	10uF	20%	50V
C19	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C20	1-164-346-11	CERAMIC CHIP	1uF		16V
C21	1-128-551-11	ELECT	22uF	20%	25V
C22	1-126-934-11	ELECT	220uF	20%	10V
C23	1-164-346-11	CERAMIC CHIP	1uF		16V
C24	1-164-346-11	CERAMIC CHIP	1uF		16V
C25	1-126-934-11	ELECT	220uF	20%	10V
C26	1-164-346-11	CERAMIC CHIP	1uF		16V
C27	1-164-346-11	CERAMIC CHIP	1uF		16V
C28	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C29	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C30	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C31	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C32	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C33	1-164-346-11	CERAMIC CHIP	1uF		16V
C34	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C35	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C36	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C37	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C38	1-126-925-11	ELECT	470uF	20%	10V
C39	1-126-926-11	ELECT	1000uF	20%	10V
C40	1-126-934-11	ELECT	220uF	20%	16V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C43	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C44	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C45	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C101	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C102	1-126-961-11	ELECT	2.2uF	20%	50V
C103	1-126-966-11	ELECT	33uF	20%	35V
C104	1-126-961-11	ELECT	2.2uF	20%	50V
C105	1-128-551-11	ELECT	22uF	20%	25V
C106	1-126-964-11	ELECT	10uF	20%	50V
C107	1-126-925-11	ELECT	470uF	20%	10V

Ref. No.	Part No.	Description			Remark
C108	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C109	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C110	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C111	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C112	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C113	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C114	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C115	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C116	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C117	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C118	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C119	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C120	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C121	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C122	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C123	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C124	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C125	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C126	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C127	1-126-964-11	ELECT	10uF	20%	50V
C128	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C129	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C130	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C131	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C201	1-137-479-11	FILM	1uF	5%	250V
C202	1-126-963-11	ELECT	4.7uF	20%	50V
C203	1-126-957-11	ELECT	0.22uF	20%	50V
C204	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C205	1-126-956-11	ELECT	0.1uF	20%	50V
C301	1-102-244-00	CERAMIC	220PF	10%	500V
C302	1-102-244-00	CERAMIC	220PF	10%	500V
C303	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C304	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C305	1-126-934-11	ELECT	220uF	20%	10V
C401	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C402	1-126-964-11	ELECT	10uF	20%	50V
C501	1-126-934-11	ELECT	220uF	20%	16V
C502	1-126-934-11	ELECT	220uF	20%	16V
C503	1-126-967-11	ELECT	47uF	20%	10V
C504	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C505	1-126-964-11	ELECT	10uF	20%	50V
C506	1-126-925-11	ELECT	470uF	20%	10V
C507	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C508	1-126-934-11	ELECT	220uF	20%	16V
		< FILTER >			
CF1	1-579-632-51	FILTER, CERAMIC			
CF2	1-577-072-11	FILTER, CERAMIC			
CF3	1-579-632-51	FILTER, CERAMIC			
		< CONNECTOR >			
* CN1	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
CN101	1-573-209-11	SOCKET, CONNECTOR 15P			
* CN102	1-568-273-11	SOCKET, CONNECTOR 7P			
		< TRIMMER >			
CT1	1-151-673-11	CAP, VARIABLE (TUNING)			

MAIN

Ref. No.	Part No.	Description	Remark
CT2	1-151-673-11	CAP, VARIABLE (TUNING)	
CT3	1-151-673-11	CAP, VARIABLE (TUNING)	
CT4	1-151-673-11	CAP, VARIABLE (TUNING)	
		< VARIABLE CAPACITOR >	
CV1	1-151-673-11	CAP, VARIABLE (TUNING)	
		< DIODE >	
D1	1-810-027-11	DIODE SL-2994-54TB	
D2	8-719-911-19	DIODE 1SS119	
D3	8-719-911-19	DIODE 1SS119	
D4	8-719-109-85	DIODE RD5.1ES-B2	
D5	8-719-911-19	DIODE 1SS119	
D6	8-719-911-19	DIODE 1SS119	
D7	8-719-052-88	DIODE 1N4002	
D101	8-719-970-02	DIODE 1SR139-400	
D102	8-719-970-02	DIODE 1SR139-400	
D103	8-719-970-02	DIODE 1SR139-400	
D104	8-719-970-02	DIODE 1SR139-400	
D105	8-719-991-33	DIODE 1SS133T-77	
D106	8-719-050-84	DIODE RB441Q-40T-77	
D107	8-719-991-33	DIODE 1SS133T-77	
D108	8-719-109-85	DIODE RD5.1ES-B2	
D109	8-719-160-59	DIODE RD13F-B2	
D110	8-719-991-33	DIODE 1SS133T-77	
D111(A)	8-719-991-33	DIODE 1SS133T-77	
D111(B)	8-719-109-97	DIODE RD6.8ES-B2	
D112	8-719-991-33	DIODE 1SS133T-77	
D201	8-719-970-02	DIODE 1SR139-400	
D202	8-719-970-02	DIODE 1SR139-400	
D203	8-719-970-02	DIODE 1SR139-400	
D204	8-719-970-02	DIODE 1SR139-400	
D205	8-719-983-97	DIODE MTZJ-T-72-39B	
D206	8-719-991-33	DIODE 1SS133T-77	
D301	8-719-991-33	DIODE 1SS133T-77	
D302	8-719-991-33	DIODE 1SS133T-77	
D401	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-052-88	DIODE 1N4002	
D502	8-719-109-97	DIODE RD6.8ES-B2	
D503	8-719-983-66	DIODE MTZJ-T-72-3.6B	
D504	8-719-109-63	DIODE RD3.0ESB2	
D505	8-719-052-88	DIODE 1N4002	
D506	8-719-983-66	DIODE MTZJ-T-72-3.6B	
		< FILTER >	
T101	1-424-024-11	FILTER, NOISE	
		< IC >	
IC1	8-752-037-02	IC CXA1019S	
IC2	8-759-193-05	IC LC85632	
IC101	8-759-979-34	IC BA6566	
IC104	8-759-921-81	IC SN74HC4066N	
IC201	8-759-081-73	IC BA8206	
IC301	8-759-529-22	IC MT88E43ASR	
		< JACK >	
J101	1-770-503-11	JACK, MODULAR (2C) 6P (LINE)	

Ref. No.	Part No.	Description			Remark
		< JUMPER RESISTOR >			
JC401	1-216-295-00	METAL CHIP	0	5%	1/10W
JC402	1-216-295-00	METAL CHIP	0	5%	1/10W
JC403	1-216-295-00	METAL CHIP	0	5%	1/10W
JC404	1-216-296-00	METAL CHIP	0	5%	1/8W
		< COIL >			
L1	1-402-472-31	ANTENNA, FERRITE-ROD (MW)			
L3	1-428-229-11	COIL, AIR-CORE			
L4	1-406-028-00	COIL, OSC (MW)			
		< PHOTO COUPLER >			
PC201	8-719-156-73	PHOTO COUPLER PS2501-1-L			
		< TRANSISTOR >			
Q1	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q2	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2			
Q3	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q101	8-729-116-91	TRANSISTOR 2SA1400-K			
Q102	8-729-025-52	TRANSISTOR 2SC4002E-AA			
Q103	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q104	8-729-173-38	TRANSISTOR 2SA733-K			
Q105	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q106	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q401	8-729-620-06	TRANSISTOR 2SC3052-EF			
Q501	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2			
		< RESISTOR >			
R1	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R2	1-216-089-11	RES,CHIP	47K	5%	1/10W
R3	1-216-071-11	RES,CHIP	8.2K	5%	1/10W
R5	1-216-017-11	RES,CHIP	47	5%	1/10W
R6	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R7	1-216-097-11	RES,CHIP	100K	5%	1/10W
R8	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R9	1-216-097-11	RES,CHIP	100K	5%	1/10W
R10	1-216-093-00	METAL CHIP	68K	5%	1/10W
R11	1-216-073-00	METAL CHIP	10K	5%	1/10W
R12	1-216-073-00	METAL CHIP	10K	5%	1/10W
R13	1-216-073-00	METAL CHIP	10K	5%	1/10W
R14	1-216-073-00	METAL CHIP	10K	5%	1/10W
R15	1-216-113-00	METAL CHIP	470K	5%	1/10W
R16	1-216-049-11	RES,CHIP	1K	5%	1/10W
R17	1-216-049-11	RES,CHIP	1K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R101	1-249-437-11	CARBON	47K	5%	1/4W
R102	1-249-441-11	CARBON	100K	5%	1/4W
R103	1-247-843-11	CARBON	3.3K	5%	1/4W
R104	1-216-101-00	METAL CHIP	150K	5%	1/10W
R105	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R106	1-259-882-11	CARBON	3.3M	5%	1/4W
R107	1-259-882-11	CARBON	3.3M	5%	1/4W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-105-11	RES,CHIP	220K	5%	1/10W
R110	1-216-089-11	RES,CHIP	47K	5%	1/10W
R111	1-216-113-00	METAL CHIP	470K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R112	1-247-733-11	CARBON	33	5%	1/2W F
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R115	1-216-049-11	RES,CHIP	1K	5%	1/10W
R116	1-216-035-00	METAL CHIP	270	5%	1/10W
R117	1-216-041-00	METAL CHIP	470	5%	1/10W
R118	1-216-049-11	RES,CHIP	1K	5%	1/10W
R119	1-216-049-11	RES,CHIP	1K	5%	1/10W
R120	1-216-097-11	RES,CHIP	100K	5%	1/10W
R121	1-216-093-11	RES,CHIP	68K	5%	1/10W
R122	1-216-113-00	METAL CHIP	470K	5%	1/10W
R123	1-216-077-00	METAL CHIP	15K	5%	1/10W
R124	1-216-089-11	RES,CHIP	47K	5%	1/10W
R125	1-216-077-00	METAL CHIP	15K	5%	1/10W
R126	1-216-077-00	METAL CHIP	15K	5%	1/10W
R127	1-216-077-00	METAL CHIP	15K	5%	1/10W
R128	1-216-077-00	METAL CHIP	15K	5%	1/10W
R129	1-216-041-00	METAL CHIP	470	5%	1/10W
R130	1-216-063-11	RES,CHIP	3.9K	5%	1/10W
R131	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R132	1-249-401-11	CARBON	47	5%	1/4W
R133	1-216-041-00	METAL CHIP	470	5%	1/10W
R134	1-216-029-00	METAL CHIP	150	5%	1/10W
R135	1-216-113-00	METAL CHIP	470K	5%	1/10W
R136	1-216-049-11	RES,CHIP	1K	5%	1/10W
R137	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R138	1-216-085-00	METAL CHIP	33K	5%	1/10W
R139	1-216-037-00	METAL CHIP	330	5%	1/10W
R140	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R141	1-216-097-11	RES,CHIP	100K	5%	1/10W
R142	1-216-097-11	RES,CHIP	100K	5%	1/10W
R143	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R144	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R145	1-216-097-11	RES,CHIP	100K	5%	1/10W
R146	1-216-041-00	METAL CHIP	470	5%	1/10W
R147	1-247-895-00	CARBON	470K	5%	1/4W
R148	1-247-887-00	CARBON	220K	5%	1/4W
R149	1-247-887-00	CARBON	220K	5%	1/4W
R201	1-247-760-11	CARBON	4.7K	5%	1/2W
R202	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R203	1-216-109-00	METAL CHIP	330K	5%	1/10W
R204	1-216-105-11	RES,CHIP	220K	5%	1/10W
R205	1-216-085-00	METAL CHIP	33K	5%	1/10W
R206	1-216-079-00	METAL CHIP	18K	5%	1/10W
R207	1-216-295-11	SHORT	0		
R208	1-216-109-00	METAL CHIP	330K	5%	1/10W
R301	1-259-878-11	CARBON	1.5M	5%	1/4W
R302	1-259-878-11	CARBON	1.5M	5%	1/4W
R303	1-216-121-11	RES,CHIP	1M	5%	1/10W
R304	1-216-097-11	RES,CHIP	100K	5%	1/10W
R305	1-216-097-11	RES,CHIP	100K	5%	1/10W
R306	1-216-121-11	RES,CHIP	1M	5%	1/10W
R307	1-216-097-11	RES,CHIP	100K	5%	1/10W
R308	1-216-097-00	METAL CHIP	100K	5%	1/10W
R401	1-216-097-11	RES,CHIP	100K	5%	1/10W
R402	1-216-097-11	RES,CHIP	100K	5%	1/10W
R403	1-216-097-11	RES,CHIP	100K	5%	1/10W
R404	1-249-441-11	CARBON	100K	5%	1/4W
R405	1-247-903-00	CARBON	1M	5%	1/4W
R406	1-247-903-00	CARBON	1M	5%	1/4W
R501	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R502	1-216-025-11	RES,CHIP	100	5%	1/10W
R503	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-228-790-00	RES, VAR, CARBON 50K (VOL Σ)			
		< SWITCH >			
S1	1-762-231-11	SWITCH, SLIDE (BAND)			
S2	1-554-303-21	SWITCH, TACTILE (TIME SET +)			
S3	1-554-303-21	SWITCH, TACTILE (TIME SET -)			
S4	1-554-303-21	SWITCH, TACTILE (CLOCK)			
S5	1-554-303-21	SWITCH, TACTILE (ALARM A RADIO)			
S6	1-554-303-21	SWITCH, TACTILE (ALARM B BUZZER)			
S7	1-554-303-21	SWITCH, TACTILE (RADIO OFF)			
S8	1-554-303-21	SWITCH, TACTILE (RADIO ON)			
S9	1-554-303-21	SWITCH, TACTILE (SNOOZE/DATE/SLEEP OFF)			
S101	1-692-494-11	SWITCH, HOOK (HOOK)			
S102	1-692-207-21	SWITCH, SLIDE (HANDSET VOL)			
S103	1-572-903-21	SWITCH, SLIDE (DIAL MODE)			
S201	1-692-207-21	SWITCH, SLIDE (RINGER LEVEL)			
		< SPARK GAP >			
SA101	1-517-224-21	GAP, DISCHARGE			
		< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF			
		< THERMISTOR >			
TH101	1-810-663-21	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X301	1-577-292-11	VIBRATOR, CRYSTAL (3.579545MHz)			
**********					
*	1-668-384-11	TRANSFORMER BOARD			
		**********			
		< TRANSFORMER >			
T2	1-429-460-11	TRANSFORMER, POWER			
**********					
*	1-669-395-11	TRANSFORMER RETAINER BOARD			
		**********			
**********					
		MISCELLANEOUS			
		**********			
2	1-771-368-11	SWITCH, RUBBER KEY			
5	1-696-455-71	CORD, CURL			
17	1-694-420-11	CONDUCTIVE BOARD, CONNECTION			
22	1-777-242-11	CORD, CONNECTION			
⚠24	1-769-339-22	CORD, POWER			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
BZ201	1-505-978-11	PIEZOELECTRIC BUZZER	
D1	1-810-027-11	DIODE SL-2994-54TB (DATE DISPLAY)	
J102	1-770-504-11	JACK, MODULAR (TO HANDSET)	
LCD601	1-803-112-11	DISPLAY PANEL, LIQUID CRYSTAL	
MIC1	1-542-161-11	MICROPHONE, ELECTRET CONDENSER	
SP1	1-504-748-21	SPEAKER (6.6cm)	
SP2	1-550-648-11	RECEIVER, DYNAMIC	
⚠T2	1-429-460-11	TRANSFORMER, POWER	
T101	1-424-024-11	FILTER, NOISE	
W52	1-535-804-21	SNAP, BATTERY	

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ACCESSORIES & PACKING MATERIALS
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	1-696-454-11	CORD (WITH MODULAR PLUG) (LINE)	(215cm)
	3-861-952-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-861-952-21	MANUAL, INSTRUCTION (FRENCH) (Canadian)	

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HARDWARE LIST
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#1	7-685-534-14	SCREW +B 2.6X8 TYPE2 NON-SLIT	
#2	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S	

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